Remarks

Reconsideration of the application is respectfully requested in view of the following remarks. Claims 1-3, 5-16, 18-26, 28-31 and 33-48 are pending in this application. Claims 1, 12, 24, 29, 41 and 49 are independent. No claims have been allowed. New claim 49 has been added.

Cited Art

The Action relies on US Pat. No. 6,324,162 B1 to Chaudhuri ("Chaudhuri"), US Pat. No. 5,457,687 to Newman ("Newman"), US Pat. No. 6,625,118 B1 to Hadi Salim et al. ("Hadi Salim"), and US Pat. No. 6,295,294 B1 to Odlyzko ("Odlyzko").

Section 103 Rejections

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. (MPEP §2142.)

Motivations to combine or modify references must come from the references themselves or be within the body of knowledge in the art. (*See,* MPEP §2143.01.)

Patentability of claims 1-3, 5-16, 18-26, 28-31 and 33-48 under § 103(a)

Claim 12

Claim 12 recites as follows:

> A computerized system comprising:
>> a network layer having a network communications link comprising an aggregate of a plurality of related channels therethrough, and triggering an ECN event in response to congestion within one of the aggregate of related plurality of channels during transmission of a packet from a source having a source protocol layer to a destination having a destination protocol layer, wherein the triggered ECN event is detectable at the source, and the destination; and,

a policy mechanism to select at least one channel of the aggregate of related plurality of channels other than the congested channel to have decreased transmission of packets therethrough based on the ECN event for alleviating the congestion.

The combination of Chaudhuri and Newman references fails to establish a *prima facie* case of obviousness because they do not teach or suggest all limitations of claim 12. For instance, Chaudhuri and Newman, both individually and in combination, fail to teach or suggest *"a policy mechanism to select at least one channel of the aggregate of related plurality of channels other than the congested channel to have decreased transmission of packets therethrough based on the ECN event for alleviating the congestion."*

The specification, however, recites many embodiments of systems for relieving congestion in communication channels. For instance, the specification at Pg. 15, Lns. 12-20 recites the following:

> Thus, if ECN is generated on channel 302, indicating that this channel is congested (perhaps, for example, as a result of the high bandwidth required by video data), then the policy mechanism – not shown in FIG. 3 – must determine which of the channels 302, 304, and 306 are to have reduced packet transmission on in order to decrease network congestion. For example, based on the criteria used by the mechanism, the decision may be made to decrease the video data throughput itself (since this would cause only a degradation in the quality of the video data, and not a complete loss of the signal), or decrease the audio data throughput, or the mouse data throughput – even though the latter two did not contribute to the network congestion.

Further at Pg. 17, Lns. 6-11, the specification recites as follows:

> The program 502 can determine which channel or channels to reduce transmission through, and how much to reduce transmission, via any criteria, such as a congestion pricing criteria.

Thus, "congestion within one of the aggregate of related plurality of channels" can be alleviated by a system operative "to select at least one channel …*other* than the congested channel to have *decreased* transmission of packets therethrough." Thus, in one embodiment, congestion in a channel, carrying video data over a link between two nodes, can be relieved by reducing transmission data in another related channel of the same link carrying audio data that is associated with the congested video data (e.g., soundtrack of a movie). Alternatively, transmission on the video channel itself may be reduced, the decision ""to select," however, being made based on "congestion pricing criteria." (*See, e.g.,* dependent claim 23)

Chaudhuri and Newman, both individually and in combination, fail to teach or suggest "to select at least one channel ...other than the congested channel to have *decreased* transmission of packets therethrough." Chaudhuri teaches a method of restoring failed communications by rerouting traffic on a "failed" channel through a redundant "restoration channel." For instance, Chaudhuri at Col. 2, Lns 9-16 recites:

> Upon detecting a link in failure, one node determines whether the link in failure includes at least one available channel (typically, a restoration channel) to carry the traffic unable to pass on the failed channel. If so, the one node signals the node at the other end of the link in failure to route traffic on the available channel in the link, thus achieving "localized" restoration in a timely fashion.

Thus, Chaudhuri teaches a system for restoring traffic due to a complete "link failure" not a system for relieving "congestion" as claimed in claim 12. Furthermore, Chaudhuri teaches selecting a "restoration channel" on which to begin and, thus, *increase* transmission upon the "restoration channel" in response to detecting a failed link. This is not the same as "to select at least one channel of the aggregate of related plurality of channels other than the congested channel to have *decreased* transmission of packets therethrough ...for alleviating the congestion."

The Action, relies on Chaudhuri Col. 3, Lns. 13-17 stating "In practice, each of the channels 16 and 18 carries traffic at an OC 48 rate, although the channels 16 and 18 could have higher or lower rates without departing from the teachings of the invention." *See*, Action, Pg. 2. Applicants fail to see how merely mentioning that traffic rate on a channel can be "OC 48 rate" or some other rate can lead one "to select at least one channel ... other than the congested channel to have *decreased* transmission of packets therethrough ...for alleviating the congestion" as claimed. This is so at least because, there is no "to select at least one channel ... to have *decreased* transmission" step taught or suggested in Chaudhuri. In fact, nothing in the Chaudhuri teaches or suggests that the rate of traffic over a selected channel is even adjustable. Chaudhuri merely mentions that it can be "higher or lower rates" than some "OC 48 rate."

Furthermore, Newman does not teach or suggest "a network communications link comprising an aggregate of a plurality of related channels" as claimed. Newman also fails to teach or suggest "to select at least one channel ... other than the congested channel to have *decreased* transmission of packets therethrough ...for alleviating the congestion" as claimed. In fact, Newman states, "when congestion is detected at a node, the node sends a choke packet back to the source identifying the destination having the congestion. When a source receives a choke

packet, the source reduces by some factor the traffic sent to the destination." *See,* Newman, Col. 5, Lns. 30-34. Thus, according to Newman there is no need "to select at least one channel... to have *decreased* transmission of packets therethrough" since congestion is always addressed by reducing transmission at the source of the congestion. Also, since Newman fails to teach or suggest "a network communications link comprising an aggregate of a plurality of related channels" any reduction in transmission would be over the entire link, not in "one channel of the aggregate of related plurality of channels" as claimed.

Thus, even assuming there was a motivation to combine Newman with Chaudhury, the combination of Newman and Chaudhury would not lead one to "to select at least one channel of the aggregate of related plurality of channels other than the congested channel to have *decreased* transmission of packets therethrough based on the ECN event for alleviating the congestion."

Because the references relied on, individually or in combination, fail to describe at least one claim limitation of claim 12, Applicants believe that claim 12 as presented is not subject to a §103(a) rejection and request that the rejection be withdrawn. Thus, claim 12 should be allowable over the cited art.

Claim 1

Claim 1 recites as follows:

A computer-implemented method comprising:
        receiving a signal indicative of an occurrence of an ECN event caused by congestion within a channel in a network communication link comprising an aggregate of a plurality of related channels connecting a source to a destination via the network communication link, wherein the signal indicating the ECN event is detectable in the source, the destination and the network; and
        based on the signal indicating the ECN event occurrence, selecting at least one channel of the aggregate of the plurality of related channels to have decreased packets transmitted therethrough for alleviating the congestion.

For at least the reasons set forth above with reference to claim 12, the Chaudhury and Newman references, both individually and in combination, fail to establish a *prima facie* case of obviousness, because they do not teach or suggest all limitations of claim 1. Specifically, Chaudhury and Newman do not suggest or teach "based on the signal indicating the ECN event occurrence, selecting at least one channel of the aggregate of the plurality of related channels to have decreased packets transmitted therethrough for alleviating the congestion."

Because the cited references, individually or in combination, fail to describe at least one claim limitation of claim 1, Applicants believe that claim 1 as presented is not subject to a §103(a) rejection and request that the rejection be withdrawn. Thus, claim 1 should be allowable over the cited art.

Claim 24

Claim 24 recites as follows:

A computer comprising:
    a processor;
    a computer-readable medium;
    a protocol layer having a network communications link comprising an aggregate of related plurality of channels connecting a source to a destination via the network communications link, the aggregate of related plurality of channels including a congested channel; and
    a congestion policy program executed by the processor from the medium, wherein the congestion policy program is responsive to an ECN event triggered within the congested channel due to a congestion during transmission of packets from the source to the destination and wherein the ECN event is detectable within the source and the destination for selecting at least one channel of the aggregate of related channels other than the congested channel to have decreased transmission of packets therethrough based on the ECN event triggered within the congested channel to alleviate the congestion.

For at least the reasons set forth above with reference to claim 12, the Chaudhury and Newman references, both individually and in combination, fail to establish a *prima facie* case of obviousness, because they do not teach or suggest all limitations of claim 24. Specifically, Chaudhury and Newman do not suggest or teach "selecting at least one channel of the aggregate of related channels other than the congested channel to have decreased transmission of packets therethrough based on the ECN event triggered within the congested channel to alleviate the congestion."

Because the cited references, individually or in combination, fail to describe at least one claim limitation of claim 24, Applicants believe that claim 24 as presented is not subject to a §103(a) rejection and request that the rejection be withdrawn. Thus, claim 24 should be allowable over the cited art.

Claim 29

Claim 29 recites as follows:

A machine-readable medium having processor instructions stored thereon for execution by a processor, the medium causing performance of a method comprising:
receiving feedback of an ECN event triggered due to a congestion occurrence in one of an aggregate of related plurality of channels within a network communications link connecting a source protocol layer to a destination protocol layer, wherein the feedback is detectable at the source and the destination; and
selecting at least one channel of the aggregate of related plurality of channels to have decreased packets transmitted therethrough, based on the ECN event for alleviating the congestion.

For at least the reasons set forth above with reference to claim 12, the Chaudhury and Newman references, both individually and in combination, fail to establish a *prima facie* case of obviousness, because they do not teach or suggest all limitations of claim 29. Specifically, Chaudhury and Newman do not teach or suggest "selecting at least one channel of the aggregate of related plurality of channels to have decreased packets transmitted therethrough, based on the ECN event for alleviating the congestion."

Because the cited references, individually or in combination, fail to describe at least one claim limitation of claim 29, Applicants believe that claim 29 as presented is not subject to a §103(a) rejection and request that the rejection be withdrawn. Thus, claim 29 should be allowable over the cited art.

Claim 41

Claim 41 recites as follows:

A computer comprising:
a source protocol layer;
a plurality of filters;
a network communication link comprising an aggregate of related plurality of channels connecting a source protocol layer to a destination protocol layer in a network layer, each channel of the plurality of related channels associated with a filter; and
a policy mechanism responsive to an ECN event triggered due to a congestion during transmission of packets from the source protocol layer to the destination protocol layer via the network layer, wherein the ECN event is detectable within the source protocol layer and the destination protocol layer for selecting, based on the ECN event, at least one channel of the aggregate of related plurality of channels to have decreased packets transmitted therethrough from the source protocol layer through the plurality of filters to alleviate the congestion.

For at least the reasons set forth above with reference to claim 12, the Chaudhury and Newman references, both individually and in combination, fail to establish a *prima facie* case of obviousness, because they do not teach or suggest all limitations of claim 41. Specifically, Chaudhury and Newman do not teach or suggest "selecting, based on the ECN event, at least one channel of the aggregate of related plurality of channels to have *decreased* packets transmitted therethrough from the source protocol layer through the plurality of filters to alleviate the congestion."

Because the cited references, individually or in combination, fail to describe at least one claim limitation of claim 41, Applicants believe that claim 41 as presented is not subject to a §103(a) rejection and request that the rejection be withdrawn. Thus, claim 41 should be allowable over the cited art.

Claims 2-3, 5-11, 13-16, 18-26, 28- 31 and 33-48

Claims 2-3, 5-11, and 44 ultimately depend on claim 1; claims 13-16, 18-23, and 45 ultimately depend on claim 12; claims 25-26, 28, and 46 ultimately depend on claim 24; claims 30-31, 33-40, and 47 ultimately depend on claim 29; and claims 42-43 and 48 ultimately depend on claim 41. Thus, at least for the reasons set forth above with regard to claims 1, 12, 24, 29, and 41, claims 2-3, 5-11, 13-16, 18-26, 28- 31, and 33-48 should be in condition for allowance.

Summary of Interview

The undersigned attorney conducted an interview with the examiner on October 3, 2005 regarding the patentability of the pending claims in view of the combination of Chaudhuri and Newman. The undersigned attorney pointed out that the Chaudhuri and Newman, both individually and in combination, fail to teach or suggest the following phrases:

    i.   *"to select at least one channel of the aggregate of related plurality of channels other than the congested channel to have decreased transmission of packets therethrough based on the ECN event for alleviating the congestion"*

    ii. *"selecting at least one channel of the aggregate of the plurality of related channels to have decreased packets transmitted therethrough for alleviating the congestion."*

The Examiner disagreed, based on the sentence in Col. 3, Lns 13-16 of Chaudhuri, which states as follows:

> In practice, each of the channels 16 and 18 carries traffic at an OC 48 rate, although the channels 16 and 18 could have higher or lower rates without departing from the teachings of the invention.

However, as noted above, The undersigned attorney argued that merely mentioning that traffic rates at of the various channel can be higher or lower than some "OC 48 rate" is not the same as "to select at least one channel of the aggregate of related plurality of channels other than the congested channel to have decreased transmission of packets therethrough" or "selecting at least one channel of the aggregate of the plurality of related channels to have decreased packets transmitted therethrough for alleviating the congestion" as claimed. This is so at least because, there is no "to select" or "selecting" step taught or suggested in Chaudhuri. In fact, nothing in the Chaudhuri teaches or suggests that the rate of traffic over a selected channel is even adjustable. The Examiner has agreed to call back the undersigned attorney on October 4, 2005 between 1-2 PM EDT after further considering the arguments presented during the interview.

Accordingly, the Examiner is formally requested to contact the undersigned attorney prior to issuance of the next Office action in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application may expedite prosecution. Applicants submit the foregoing formal remarks so that the Examiner may fully evaluate Applicants' position, thereby enabling the interview to be more focused.

This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

Conclusion

The claims in their present form should now be allowable. Such action is respectfully requested.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

One World Trade Center, Suite 1600
121 S.W. Salmon Street
Portland, Oregon 97204   By _____
Telephone: (503) 595-5300   Sunjay Y. Mohan
Facsimile: (503) 595-5301   Registration No. 56,739